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=> search oxide superconductor

1699757 OXIDE  
346847 OXIDES  
1797913 OXIDE  
(OXIDE OR OXIDES)  
118360 SUPERCONDUCTOR  
123533 SUPERCONDUCTORS  
153631 SUPERCONDUCTOR  
(SUPERCONDUCTOR OR SUPERCONDUCTORS)  
L1 30693 OXIDE SUPERCONDUCTOR  
(OXIDE(W) SUPERCONDUCTOR)

=> s siloxane

61774 SILOXANE  
71915 SILOXANES  
L2 96966 SILOXANE  
(SILOXANE OR SILOXANES)

=> search L1 and L2

L3 16 L1 AND L2

=> search L3 and wire

144646 WIRE  
66846 WIRES  
169119 WIRE  
(WIRE OR WIRES)  
L4 3 L3 AND WIRE

=> dis L4

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 1996:288358 CAPLUS  
DN 124:330229  
TI Formation of electrode on oxide ceramic superconductor  
IN Hayashi, Norikata; Okuda, Shigeru; Yoshida, Noryuki; Fujino, Gozo; Hara, Chikushi; Ishii, Hideo  
PA Sumitomo Electric Industries, Japan; Tokyo Electric Power Co  
SO Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08050937	A2	19960220	JP 1994-297085	19941130
PRAI	JP 1994-297085	A	19941130		
	JP 1994-116149		19940530		

=> dis L4 IBIB 1-3

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1996:288358 CAPLUS  
 DOCUMENT NUMBER: 124:330229  
 TITLE: Formation of electrode on oxide ceramic superconductor  
 INVENTOR(S): Hayashi, Norikata; Okuda, Shigeru; Yoshida, Noryuki; Fujino, Gozo; Hara, Chikushi; Ishii, Hideo  
 PATENT ASSIGNEE(S): Sumitomo Electric Industries, Japan; Tokyo Electric Power Co  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 08050937	A2	19960220	JP 1994-297085	19941130
PRIORITY APPLN. INFO.:				JP 1994-297085	A 19941130
				JP 1994-116149	19940530

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1995:470234 CAPLUS  
 DOCUMENT NUMBER: 122:228734  
 TITLE: Superconductor wires  
 INVENTOR(S): Muranaka, Koji; Sato, Kenichi; Hikata, Takeshi  
 PATENT ASSIGNEE(S): Sumitomo Denki Kogyo K. K., Japan; Shingijutsu Jigyodan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 06243745	A2	19940902	JP 1993-108395	19930510
	EP 631331	A1	19941228	EP 1994-106899	19940503
	EP 631331	B1	19980311		
	R: CH, DE, FR, GB, IT, LI, SE				
	US 5902774	A	19990511	US 1997-955322	19971020
PRIORITY APPLN. INFO.:				JP 1992-227330	A 19920826
				JP 1992-346700	A 19921225
				JP 1993-108395	A 19930510
				US 1994-238127	B1 19940504
				US 1995-538110	B1 19951002

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1991:621189 CAPLUS  
 DOCUMENT NUMBER: 115:221189  
 TITLE: Oxide superconductor-coated silicon oxynitride wire and its manufacture  
 INVENTOR(S): Sato, Kiyoshi; Suzuki, Sunao; Funayama, Toru; Isoda, Takeshi

JP 03126602 ICM C01B013-14  
 ICS C01G003-00; C08G077-48; H01B012-06; H01B013-00;  
 H01L039-24  
 IPCI C01B0013-14 [ICM,5]; C01G0003-00 [ICS,5]; C08G0077-48  
 [ICS,5]; C08G0077-00 [ICS,5,C\*]; H01B0012-06 [ICS,5];  
 H01B0013-00 [ICS,5]; H01L0039-24 [ICS,5]

AB The title film consists of an oxide superconductor  
 powder with an amorphous Si oxynitride binder formed on a substrate. The  
 film is manufactured by applying a paste containing the superconductor powders  
 and polysiloxazane on the substrate and heating.

ST superconductor film silicon oxynitride binder

IT Superconductors  
 (oxide films, with silicon oxynitride binder)

IT Siloxanes and Silicones, uses and miscellaneous  
 RL: USES (Uses)  
 (silazane-, hydrogen, silicon oxynitride from, for oxide  
 superconductor film binder)

IT Silazanes  
 RL: USES (Uses)  
 (siloxane-, hydrogen, silicon oxynitride from, for  
 oxide superconductor film binder)

IT 11105-01-4, Silicon oxynitride  
 RL: USES (Uses)  
 (binders, for oxide superconductor film)

IT 109064-29-1D, Barium copper yttrium oxide (Ba<sub>2</sub>Cu<sub>3</sub>YO<sub>7</sub>), oxygen-deficient  
 RL: PRP (Properties)  
 (superconductor film, with silicon oxynitride binder)

L3 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1991:621187 CAPLUS  
 DN 115:221187  
 ED Entered STN: 15 Nov 1991  
 TI Oxide superconductor film containing protecting layer  
 and its manufacture  
 IN Sato, Kiyoshi; Suzuki, Sunao; Funayama, Toru; Isoda, Takeshi  
 PA Tonen Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 3 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese  
 IC ICM H01L039-02  
 ICS C04B041-89; H01B012-06; H01B013-00  
 CC 76-4 (Electric Phenomena)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03125484	A2	19910528	JP 1989-262964	19891011
PRAI	JP 1989-262964		19891011		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 03125484	ICM	H01L039-02
	ICS	C04B041-89; H01B012-06; H01B013-00
	IPCI	H01L0039-02 [ICM,5]; C04B0041-89 [ICS,5]; H01B0012-06 [ICS,5]; H01B0013-00 [ICS,5]

AB The film consists of an oxide superconductor film  
 coated with an amorphous Si oxynitride film, optionally a polysiloxazane  
 cured film. The film is manufactured by forming the superconductor film on a  
 substrate, applying polysiloxazane thereon, and heating.

ST superconductor oxide film silicon oxynitride protecting; polysiloxazane  
 protecting oxide superconductor film

IT Coating materials  
 (polysiloxazanes, oxide superconductor film  
 protecting layer containing)

IT Superconductors  
 (film, oxide, with silicon oxynitride layer)  
 IT Siloxanes and Silicones, uses and miscellaneous  
 RL: USES (Uses)  
 (silazane-, oxide superconductor film protecting  
 layer containing)  
 IT Silazanes  
 RL: USES (Uses)  
 (siloxane-, oxide superconductor film  
 protecting layer containing)  
 IT Films  
 (superconductive, oxide)  
 IT 11105-01-4, Silicon oxynitride  
 RL: USES (Uses)  
 (oxide superconductor film protecting layer containing)  
 IT 109064-29-1, Barium copper yttrium oxide (Ba<sub>2</sub>Cu<sub>3</sub>YO<sub>7</sub>)  
 RL: PRP (Properties)  
 (superconductor film, having silicon compound protecting layer)

L3 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1991:463681 CAPLUS

DN 115:63681

ED Entered STN: 10 Aug 1991

TI Electrochemical method for characterization of valence conditions in  
 oxide-superconductor materials with a variable oxygen  
 content

IN Gruner, Wolfgang

PA Akademie der Wissenschaften der DDR, Zentralinstitut fuer  
 Festkoerperphysik und Werkstofforschung, Ger. Dem. Rep.

SO Ger. (East), 3 pp.

CODEN: GEXXA8

DT Patent

LA German

IC ICM G01N027-52

CC 79-6 (Inorganic Analytical Chemistry)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 284535	A5	19901114	DD 1989-329104	19890531
PRAI	DD 1989-329104		19890531		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 284535	ICM	G01N027-52
	IPCI	G01N0027-52 [ICM,4]
	IPCR	G01N0027-416 [I,C*]; G01N0027-416 [I,A]

AB This method is described, where valence conditions are characterized by  
 direct electrochem. controlled and immediately electrochem. recorded  
 reactions, coming out on a solid, in which a C paste is formed from a  
 powdered sample with spectrally pure C and an organic-binder additive and is  
 applied on a measuring head of a graphite electrode serving as the working  
 electrode. An electrochem. reduction results in the electrochem. measuring  
 cell which contains the working, counter, and reference electrodes.

ST valence characterization oxide superconductor  
 electrochem

IT Siloxanes and Silicones, uses and miscellaneous  
 RL: USES (Uses)  
 (oil, in valence characterization for oxide  
 superconductors, electrochem. method involving)

IT Superconductors  
 (oxide, valence characterization in, electrochem.)

IT 1310-73-2, Sodium hydroxide, uses and miscellaneous 7440-44-0, Carbon,  
 uses and miscellaneous  
 RL: USES (Uses)  
 (in valence characterization for oxide

superconductors, electrochem. method involving)

L3 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 1990:488864 CAPLUS  
DN 113:88864  
ED Entered STN: 01 Sep 1990  
TI Dielectric and high-Tc superconductor applications of sol-gel and modified  
sol-gel processing to microelectronics technology  
AU Bagley, B. G.; Quinn, W. E.; Khan, S. A.; Barboux, P.; Tarascon, J. M.  
CS Bellcore, Red Bank, NJ, 07701, USA  
SO Journal of Non-Crystalline Solids (1990), 121(1-3), 454-62  
CODEN: JNCSBJ; ISSN: 0022-3093  
DT Journal; General Review  
LA English  
CC 76-0 (Electric Phenomena)  
AB Microelectronic applications for sol-gel processed dielec. materials are  
briefly reviewed with 21 refs. The preparation and properties of dielec. thin  
films of a ladder siloxane, useful for some of these  
applications, are described. Also discussed is the processing and  
properties of an aqueous based sol-gel process for the preparation of  
superconducting YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-y</sub>, a material which could have application as a  
thick film chip-carrier metal interconnect. Materials prepared using this  
process demonstrates an excellent resistivity vs. temperature superconducting  
transition behavior but have a low critical c.d.  
ST review dielec material prepn sol gel; oxide  
superconductor prepn sol gel process; yttrium barium cuprate prepn  
sol gel; interconnect yttrium barium cuprate sol gel  
IT Superconductors  
(barium copper yttrium oxides, as thick-film chip-carrier metal  
interconnects, by sol-gel process)  
IT Electric insulators and Dielectrics  
(microelectronic applications for sol-gel process)  
IT Electric conductors  
(interconnections, barium copper yttrium oxide as thick-film  
chip-carrier, preparation of, by sol-gel process)  
IT 109064-29-1D, Barium copper yttrium oxide (Ba<sub>2</sub>Cu<sub>3</sub>YO<sub>7</sub>), oxygen-deficient  
RL: USES (Uses)  
(thick-film chip-carrier metal interconnects, by sol-gel process)

L3 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 1990:110302 CAPLUS  
DN 112:110302  
ED Entered STN: 18 Mar 1990  
TI Paste of powdered ceramic superconductor  
IN Iwamatsu, Seiichi  
PA Seiko Epson Corp., Japan  
SO Jpn. Kokai Tokkyo Koho, 2 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
IC ICM H05K001-09  
ICS B23K035-22; H01B012-00; H01L039-12  
ICA C01G003-00; H01L021-52  
CC 76-4 (Electric Phenomena)  
Section cross-reference(s): 57

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01200691	A2	19890811	JP 1988-25248	19880205
PRAI	JP 1988-25248		19880205		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 01200691	ICM	H05K001-09
	ICS	B23K035-22; H01B012-00; H01L039-12

ICA C01G003-00; H01L021-52  
IPCI H05K0001-09 [ICM,4]; B23K0035-22 [ICS,4]; H01B0012-00  
[ICS,4]; H01L0039-12 [ICS,4]; C01G0003-00 [ICA,4];  
H01L0021-52 [ICA,4]; H01L0021-02 [ICA,4,C\*]

- AB A powdered ceramic superconductor material is mixed with a resin, e.g. an epoxy resin, a polyimide resin, a silicone, or mixed with a low m.p.-powdered glass and a binder, e.g. polyglycols, to give a superconductive paste. The paste is useful for a printed circuit board or adhesion in an electronic device. A powdered Y-Ba-Cu-O ceramic showing diamagnetic property at room temperature was mixed with a silicone resin to give the title superconductor paste.
- ST powd ceramic oxide superconductor paste; barium copper yttrium oxide superconductor; silicone powd ceramic superconductor paste; glass ceramic oxide superconductor paste
- IT Pastes  
(ceramic oxide superconductor optionally containing glass, for printed circuit or adhesion in electronic device)
- IT Superconductor devices  
(ceramic oxide superconductor paste optionally containing glass for, for printed circuit or adhesion in electronic device)
- IT Superconductors  
(paste, containing powdered ceramic oxide superconductor and optionally glass)
- IT Epoxy resins, uses and miscellaneous  
Polyimides, uses and miscellaneous  
Siloxanes and Silicones, uses and miscellaneous  
RL: TEM (Technical or engineered material use); USES (Uses)  
(paste, containing powdered ceramic superconductor, for printed circuit or adhesion of electronic device)
- IT 107-21-1D, Glycol, polymers  
RL: TEM (Technical or engineered material use); USES (Uses)  
(paste, containing powdered ceramic superconductor, for printed circuit or adhesion of electronic device)
- IT 107539-20-8, Barium copper yttrium oxide  
RL: TEM (Technical or engineered material use); USES (Uses)  
(superconductor, powdered, paste containing, optionally containing glass)

L3 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1989:607566 CAPLUS

DN 111:207566

ED Entered STN: 25 Nov 1989

TI Manufacture of oxide superconductors

IN Fujiki, Michiya; Sukegawa, Takeshi; Konaka, Tsuneo; Mikawa, Izumi; Matsura, Taketoshi

PA Nippon Telegraph and Telephone Public Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM H01B012-04

ICS C04B035-00; H01B013-00

ICA C04B041-82

CC 76-4 (Electric Phenomena)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01007412	A2	19890111	JP 1987-162936	19870630
PRAI	JP 1987-162936		19870630		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 01007412	ICM	H01B012-04
	ICS	C04B035-00; H01B013-00

ICA C04B041-82  
 IPCI H01B0012-04 [ICM,4]; C04B0035-00 [ICS,4]; H01B0013-00 [ICS,4]; C04B0041-82 [ICA,4]

AB In the process, an oxide superconductor with the composition  $M_xM_1yM_2zO_w$ , where  $M = \geq 1$  element(s) from B, Al, Ga, In, Tl, Sc, Y, La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, and Lu;  $M_2 = \geq 1$  element(s) from Be, Mg, Ca, Sr, Ba, Ra, Sn, and Pb;  $M_2 = Cu$ ; and x, y, z, and w represent atomic mol ratio, and a predetd. configuration is prepared, and the superconductor surface is coated with a hydrophobic agent. Optionally, the hydrophobic agent is a silane-coupling agent, Ti-coupling agent, or a F-containing organic compound. The coating gives the superconductor resistance against acid or alkaline hydrolysis.

ST oxide superconductor hydrophobic film coating

IT Siloxanes and Silicones, uses and miscellaneous  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (fluorine-containing, hydrophobic films from, for oxide superconductors)

IT Coating process  
 (of hydrophobic films for oxide superconductors)

IT Superconductors  
 (oxide, coating of, with hydrophobic films)

IT Coupling agents  
 (silane, hydrophobic films from, for oxide superconductors)

IT Coating materials  
 (hydrophobic, for oxide superconductors)

IT 112-04-9 999-97-3, Hexamethyldisilazane 7399-00-0 72014-42-7  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (hydrophobic films from, for oxide superconductors)

IT 107539-20-8, Yttrium barium copper oxide 109457-23-0, Barium copper erbium oxide 109457-25-2, Barium copper lutetium oxide 110687-67-7, Barium copper gadolinium oxide  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (superconductor, coating of, with hydrophobic films)

L3 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1988:214757 CAPLUS

DN 108:214757

ED Entered STN: 11 Jun 1988

TI Reaction of organic materials with yttrium barium copper oxide (YBa<sub>2</sub>Cu<sub>3</sub>O<sub>x</sub>)

AU McAndrew, T. P.; Frase, K. G.; Shaw, R. R.

CS IBM East Fishkill, Hopewell Junction, NY, 12533, USA

SO AIP Conference Proceedings (1988), 165 (Thin Film Process. Charact. High-Temp. Supercond.), 451-8  
 CODEN: APCPCS; ISSN: 0094-243X

DT Journal

LA English

CC 76-4 (Electric Phenomena)  
 Section cross-reference(s): 22, 67

AB Strong surface and interfacial reactions between Y Ba Cu oxide and common orgs. can occur at modest temps. These reactions can result in the loss of elec. continuity, lowered elec. conductivity, and loss of low-temperature diamagnetic behavior. The effect occurs in powders exposed to common liquid solvents (acetone, hexane), as well as powders incorporated into polymer matrixes (polyvinyl butyral, polyimide, Si rubber, polyphosphazene). The powder acts as a strong catalytic agent in polymer matrixes, generating exotherms and even causing combustion in some cases. A strong particle size effect is present.

ST yttrium barium copper oxide superconductor; org  
 acetone hexane oxide superconductor; polymer decompn  
 combustion superconductor; decompn catalyst superconductor polymer

IT Decomposition catalysts  
 (barium copper yttrium oxide, for organic polymers, supercond. in relation to)

IT Superconductors

(barium copper yttrium oxide, reactions with organic solvents and polymers effect on)

IT Electric resistance  
(of barium copper yttrium oxide, reactions with organic solvents and polymers effect on)

IT Siloxanes and Silicones, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reactions of, with barium copper yttrium oxide)

IT Vinyl acetal polymers  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(butyrals, reactions of, with barium copper yttrium oxide)

IT Magnetic property and Magnetism  
(dia-, of barium copper yttrium oxide, reactions with organic solvents and polymers effect on)

IT Phosphazene polymers  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(fluoroalkoxy, reactions of, with barium copper yttrium oxide)

IT 25038-81-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reactions of, with barium copper yttrium oxide)

IT 67-64-1, Acetone, reactions 110-54-3, Hexane, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reactions of, with barium copper yttrium oxide, supercond. in relation to)

IT 107539-20-8, Barium copper yttrium oxide  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reactions of, with organic solvent and organic polymers)

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